

REMARKS

Claims 3-5, 7 and 9-11 all the claims pending in the application, stand rejected. The Examiner has cited a new reference, Palestro, that addresses independent claim 9, which Applicant amended in the 1.116 Amendment filed on April 11, 2007. Applicants have again amended claim 9 to define over Palestro.

Claim Rejections - 35 U.S.C. § 103

Claims 9-11 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Yuen (GB 2301179 A) in view of Taylor (U.S. Patent No. 6,911,186 B2) and Palestro (U.S. Patent No. 6,264,888 B1). This rejection is traversed for at least the following reasons.

Yuen

The Examiner repeats his analysis of Yuen from the previous Office Action. However, the Examiner concedes that Yuen fails to disclose a portable photoelectric air cleaner comprising a semicircular body having front, top and rear portions forming a continuous curve and defining a curve front face with an air outlet portion and a curved rear face with an air inlet portion or an air collector, as recited in applicant's claim 9. The Examiner looks to Taylor for remedying this deficiency.

Taylor

The Examiner repeats his analysis of Taylor from the previous Office Action, but concedes that neither Taylor or Yuen teach placement of the ultraviolet lamp in the middle of the device and include air collecting walls extending in the manner claimed. The Examiner looks to Palestro for this teaching.

Palestro

Specifically, the Examiner asserts that Palestro teaches an ultraviolet germicidal apparatus for destroying airborne pathogenic bacteria with a relevant circulation structure. The Examiner states that the apparatus (10) of Palestro comprises a housing (40) having an air intake duct (42) and an air discharge duct (44), a blower (120) and a set of ultraviolet lights (150) located in a sterilization chamber (180) within the housing (40) (see figures 1 and 2; see col. 7, lines 32-57). Further, the Examiner states that the sterilization chamber (180) is baffled in the upstream side by an intake baffle (182) and on the downstream side by a pair of exhaust baffles (184 and 187) extending from the side portions of the housing (40). The Examiner asserts that

these baffles function as blocking walls and air collecting walls to prevent ultraviolet light from leaking from the sterilization chamber (180) out of the intake duct (42) or the discharge duct (44) and into the environment where it could damage the skin and eyes of people. Additionally the Examiner states that the baffles (182, 184, and 187) also improve the circulation of the air over the ultraviolet bulbs by directing the air flow across the bulbs (see col. 8, lines 38-65; see col. 9, lines 19-43) (Office Action pages 2-5).

The Examiner proposes that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Yuen and place the ultraviolet lamp in the middle of the device and include air collecting walls.

However, Applicants respectfully submit that Palestro, alone or in combination with Yuen and Taylor fails to teach or suggest all of the elements of claim 9. Specifically, the references fails to teach claim 9 feature of “an air collector [that] is comprised of a space which is defined by air collector walls extending from respective side portions of said body and a blocking wall wherein said blocking wall is spaced apart and upstream from said air collector walls and having an air inlet defined by said air collector walls and said blocking wall”.

In contrast, Palestro discloses that “exhaust baffles 184 and 187 form a channel therebetween for the air to leave the sterilization chamber 180, as best shown in the sectional view of FIG. 2. Both exhaust baffles 184 and 187 are curved with the inner side of the curve away from the sterilization chamber 180. The air passes under the lower edge of the upper exhaust baffle 184, through the channel defined by the upper baffle 184 and 187, and over the upper edge of the lower exhaust baffle 187.” (col. 8, lines 58-65)

Further, Palestro discloses in FIG. 2, that “the air passes the ultraviolet lights a first time immediately after it passes over the top of the air intake baffle 182 and into the sterilization chamber. The air pathway is blocked on the opposite side of the sterilization chamber by the air exhaust baffle 184. The inclined and curved surface of the air exhaust baffle, together with the top wall of the housing 40, define a space 186 to receive the air after it passes the ultraviolet light a first time. The air then reflects off the air exhaust baffle 184 and out of the space 186 and back toward the ultraviolet lights for a second pass. The air is then drawn out of the sterilization chamber 180 by passing under the exhaust baffle 184 and into the blower 120” (col. lines 31-43).

Because, Palestro discloses that the air passes over the top of the air intake baffle 182 and into the sterilization chamber and is blocked on the opposite side by the baffle 184, it fails to disclose claim 9 feature of an “air collector [that] is comprised of a space which is defined by air collector walls extending from respective side portions of said body and a blocking wall wherein said blocking wall is spaced apart and upstream from said air collector walls and having an air inlet defined by said air collector walls and said blocking wall”.

Also, Applicants respectfully submit that when the references are viewed for the whole of their teachings, one having ordinary skill would not have been motivated to combine the references, because Palestro teaches that the air is baffled and circulates around the ultraviolet lights and that such air is required to circulate over the ultraviolet bulbs twice. That is, if Palestro provided a “blocking wall [that] is spaced apart and upstream from said air collector walls and having an air inlet defined by said air collector walls and said blocking wall” the air would not be baffled or be able to circulate the air around the ultraviolet bulbs twice.

Palestro discloses that the air circulates behind an intake baffle and into the sterilization chamber having a set of ultraviolet lights. An outlet baffle at the opposite side of the sterilization chamber bounces the air that passes the ultraviolet lights back over the ultraviolet lights a second time, and around the outlet baffle to the fan (page 6, lines 41-45). In Figs. 1 and 2, the sterilization chamber 180 is baffled on the upstream side by an intake baffle 182, and on the downstream side by a pair of exhaust baffles 184 and 187. The baffles also improve the circulation of the air over the ultraviolet bulbs in the manner that allows the air to pass over the ultraviolet lights twice (page 8, lines 39-46 and page 9, lines 31-31). Accordingly, because Palestro teaches that the air is baffled and circulates around the ultraviolet lights and that such air is required to circulate over the ultraviolet bulbs twice, Palestro would not be able to circulate air around the ultraviolet lamps if it discloses independent claim 9 features of a “blocking wall [that] is spaced apart and upstream from said air collector walls and having an air inlet defined by said air collector walls and said blocking wall”. Further, Applicants submit that the modifications suggested by the Examiner would not be considered obvious by one having ordinary skill, but that such modifications would teach away from providing baffled air to circulate around the ultraviolet bulbs twice.

In order to emphasize this distinction, Applicants have amended independent claim 9 by adding the limitation "for forcing the air from the air inlet once around the ultra violet band C radiation tube".

Therefore, Applicants submit that the patents to Yuen, Taylor and Palestro, alone or in combination, do not teach all the features of claim 9. Since the combination of Taylor, Palestro and Yuen does not teach the invention as now claimed, claim 9 should be patentable.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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